

COASTAL SEAS UNDER PRESSURE

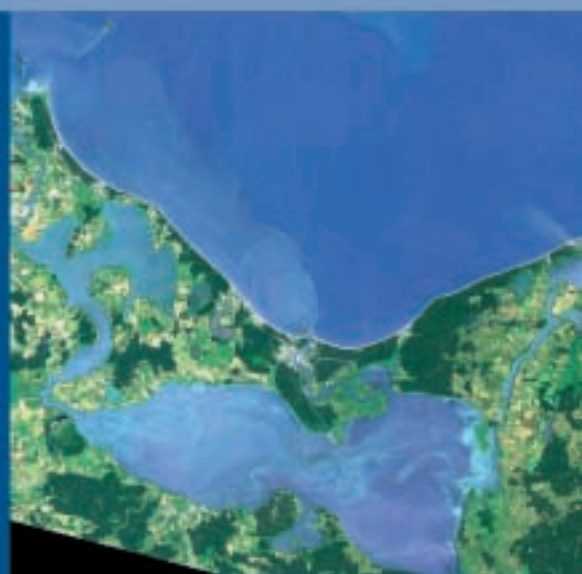
TEMPERATE LAGOONS



IMPLEMENTATION OF WATER FRAMEWORK DIRECTIVE

The EU Water Framework Directive requires the restoration of a high ecological quality in European coastal waters by the year 2015. This cannot be accomplished by load reduction alone.

Over-fertilization of coastal waters is also effected by internal nutrient fluxes from the sedimentary basins and coastal lagoons. This process masks load reduction efforts for decades.



Ocean colour satellite data showing fresh-water inflow in the western Baltic Sea from the Oder River



Blue-green algae bloom in a semi-enclosed water body, the Greifswalder Bodden, during summer 2000.

RESEARCH NEEDS

- ▶ to quantify pools and fluxes of coastal nutrient
- ▶ to model nutrient cycles with predictive capabilities effecting future ecosystem;
- ▶ to evaluate efficiency of remediation activities
- ▶ to adapt existing freshwater technologies for marine environments
- ▶ to develop innovative technological approaches